

Role play game CLIMATE NEGOTIATIONS

Professor Andra Blumberga

Dr.Sc.Ing.Antra Kalnbalkite

Girts Bohvalovs

Ricardo Paoli

Institute of Energy Systems and Environment

Riga Technical university

20.03.2024.

videszinatne.rtu.lv

Instructions for negotiations

- You represent the national government and make legally binding decisions about your national CO2 goals on its behalf
- To help you prepare for the negotiations, your country's economic and environmental planning specialists have created a special numerical scoring system so that you can assess the impact of different outcome of negotiations for your country



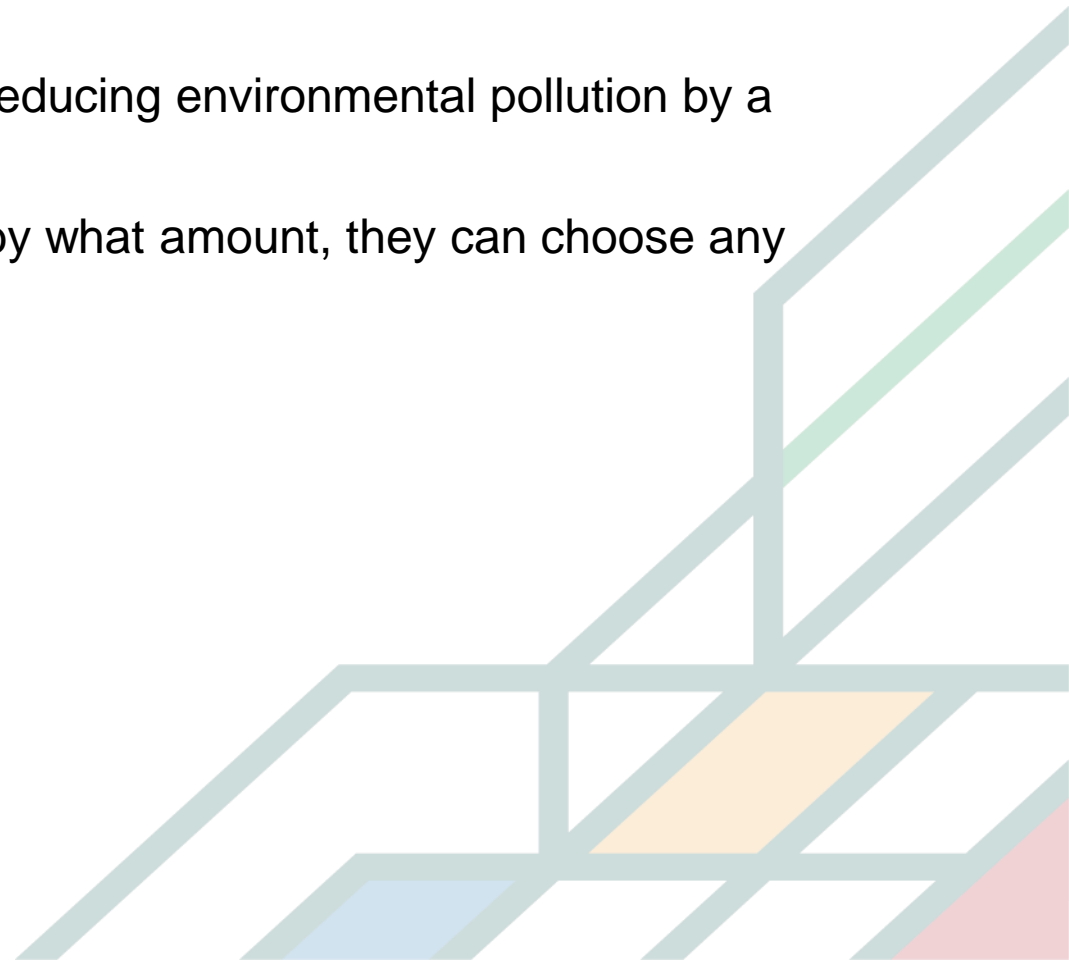
Playing the game

- Rounds of negotiations: one year per round
- Negotiations take place in each round and at the end of them you must decide
- During the negotiations, you need to convince the representatives of the other countries that they must make the promised reduction in pollution.
- You are free to use any kind of negotiation form (plenary, small groups or individually, you can make speeches, make promises, threaten or make deals). Physical abuse is not allowed.
- At the end of each round, all countries submit pollution reductions for the current year



Simulation instruction

- Representatives of countries from industrialized countries and emerging industrial countries take part in the simulation
- The smallest industrialized countries and emerging industries have promised to reduce environmental pollution by 1 unit annually
- The six largest industrialised countries have committed to reducing environmental pollution by a larger number of units from 2 to 7 units
- When national representatives choose to reduce pollution by what amount, they can choose any integer between 0 and its promised pollution reduction



Annual losses

- Table 1 shows the country's annual economic and environmental losses in each round of negotiations
- All the figures in Table 1 are positive, because the team of specialists believes that global warming will bring only losses to the country's economy – environmental damage, expensive measures to reduce emissions, or a combination of both

Your goal is to minimize national losses



1. Fill in your decision with the PEN for the current year in Table 2

2. Fill in overall reduction (announced by the game manager) for the current year in Table 2

3. Determine your losses from the annual loss table (Table 1) for the current year

Round	Annual decrease	Overall reduction	Your losses from Table 1	Accidental loss or gain	Exchanged points	Your losses + random losses + exchanged points	Accumulated
1	1	7					
2							
3							
4							

6. Insert accidental losses/gains if applicable (+/- 50 points)

5. Calculate accumulated losses in Table 2

Overall reduction (sum of all Member States)	Reduction decision	
	0 unit	1 unit
0	81	X
1-2	78	97
3-4	74	93
5-6	70	89
7-8	66	86
9-10	63	82

Round	Annual decrease	Overall reduction	Your losses from Table 1	Accidental loss or gain	Exchanged points	Your losses + random losses + exchanged points	Accumulated
1	1	7	86				86
2			A	- H			86+A-H
3			B	+ L			86+A-H+B+L
4							

4. Insert your annual losses in Table 2

3 year average deficit	Losers	Winners
Deficit 0-2	0	0
Deficit 3-5	1	0
Deficit 6-8	2	0
Deficit 9-11	3	1
Deficit ≥ 12	4	2

Multi-prisoner's dilemma

- ▶ Part of the Game Theory
- ▶ How do individuals act in a situation where it is not known how others will act
- ▶ Explains why individuals cannot agree even when the best solution for all is an agreement or cooperation

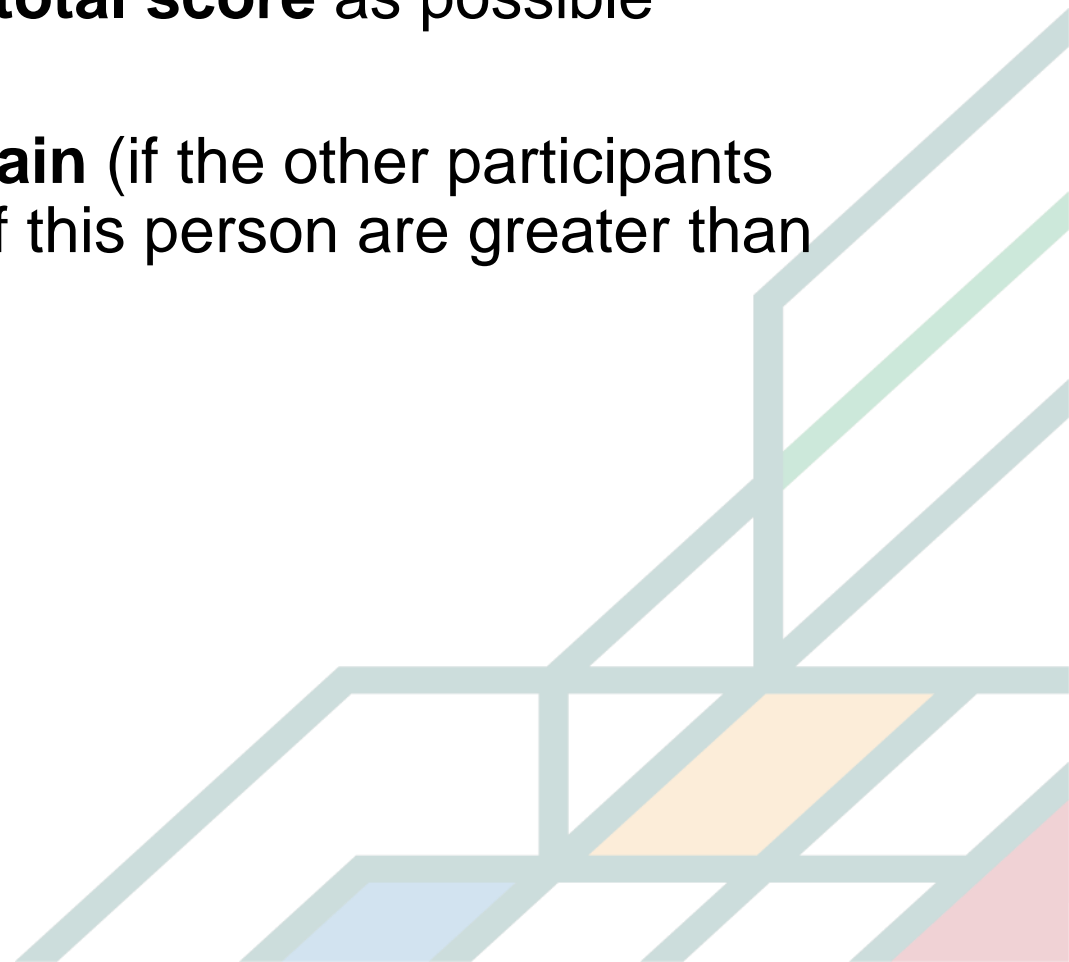


Four types of people in a collective action situation

videszinatne.rtu.lv

Type 1: Win-oriented person

- The only goal is to **win** (to be better than the other participants)
- Constantly, put 0 units just to get as **small a total score** as possible compared the other participants
- Moral philosophy is based only on **relative gain** (if the other participants do not cooperate, then the absolute losses of this person are greater than if he cooperated at least a little)
- **Strategy** – 0 units all the time



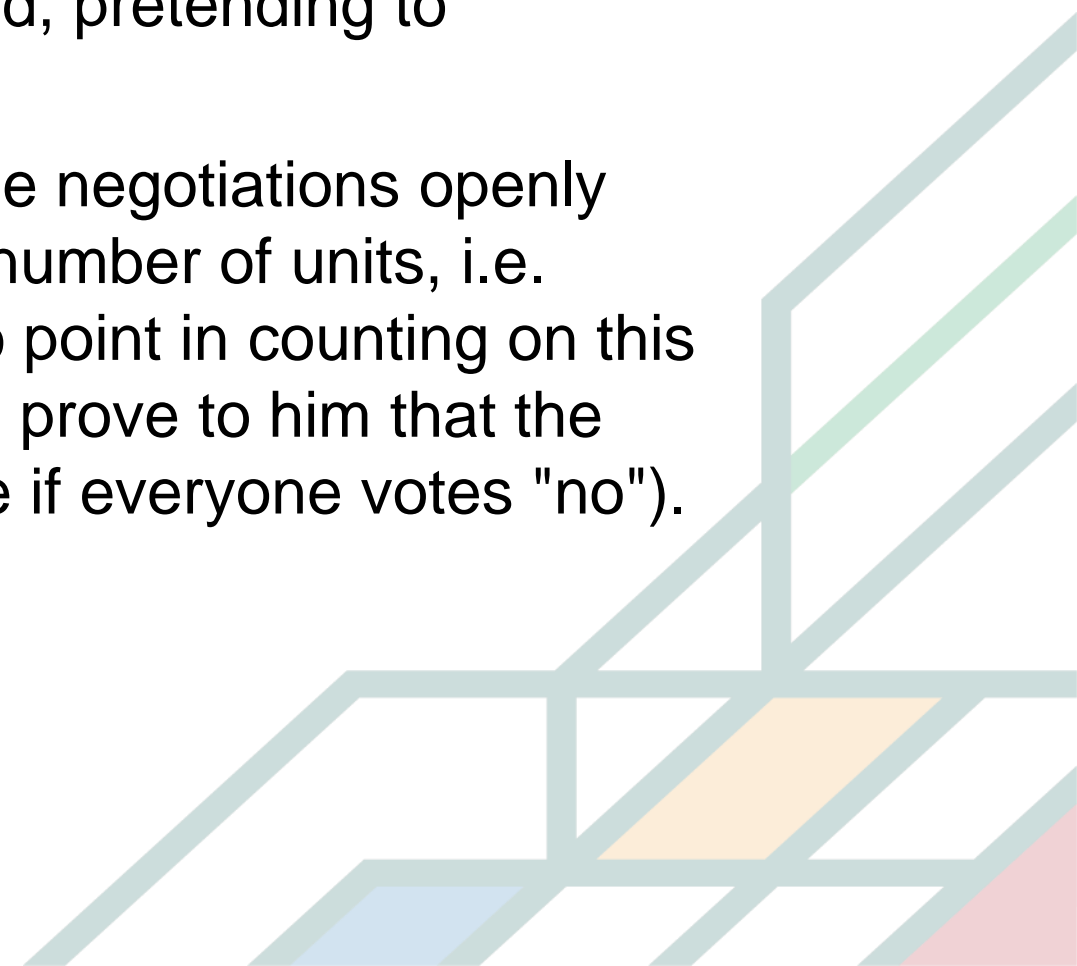
Type 2: Opportunist

- **Evaluate personal absolute losses**, not relative ones
- Oriented to the smallest possible accumulated losses
- To achieve his/her goal, he/she makes **others to cooperate, while inserting as few units as possible**



Type 2: Opportunist

- **Live at the expense of others (free-rider):**
 - *The iniquitous* – trying to fall away unnoticed, pretending to cooperate, but inserting 0 units
 - *Self-conscious* – at the very beginning of the negotiations openly declares that he will always put the lowest number of units, i.e. provoking others to assume that there is no point in counting on this person. He can only cooperate if the others prove to him that the mass "no" vote will continue (he loses more if everyone votes "no").



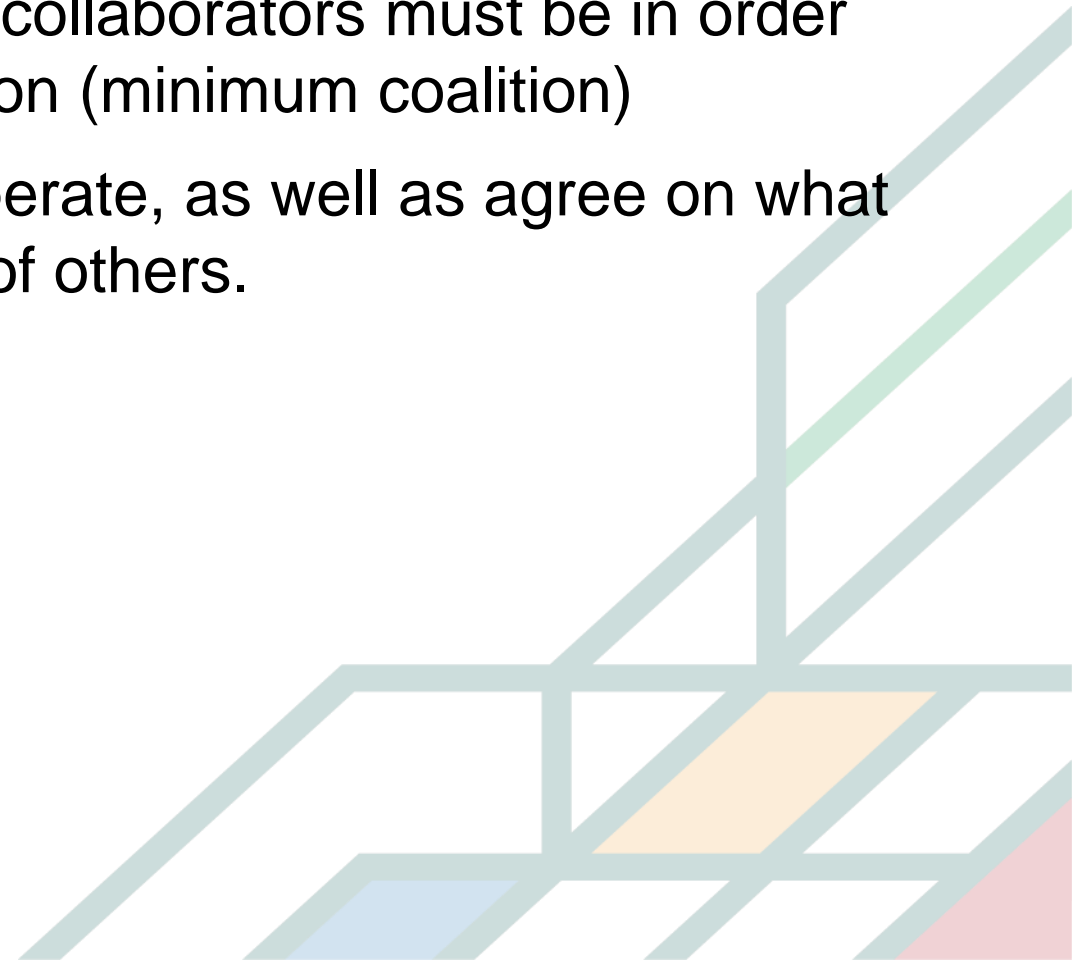
Type 3: Honest Citizen

- Cares for one's own good, but his/her moral principles demand to **also think of the common good**
- Don't live at the expense of others – this person looks for a way to **honestly benefit himself**
- Looking for a solution by persuading others to cooperate and offering his/her cooperation



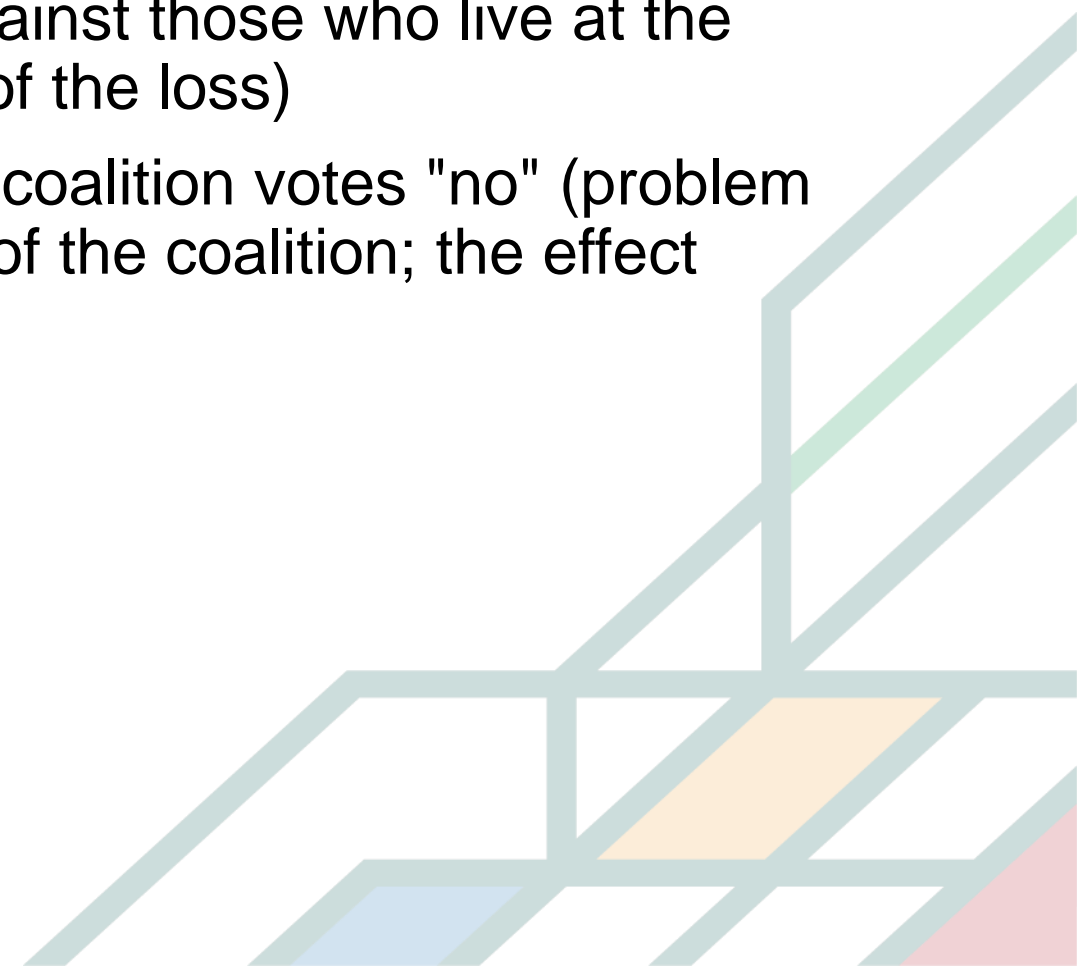
Type 3: Honest Citizen

- Strategy problems:
 - One must know how large the number of collaborators must be in order for him to become interested in cooperation (minimum coalition)
 - It is necessary to convince others to cooperate, as well as agree on what to do with those who live at the expense of others.



Type 3: Honest Citizen

- Four ways to address **both of the strategy's challenges**:
 - *Mass "no" voting* – the coalition's fight against those who live at the expense of others (beware of the extent of the loss)
 - *Flexible "no" voting* – one or some of the coalition votes "no" (problem – they gain compared to other members of the coalition; the effect may be insufficient)



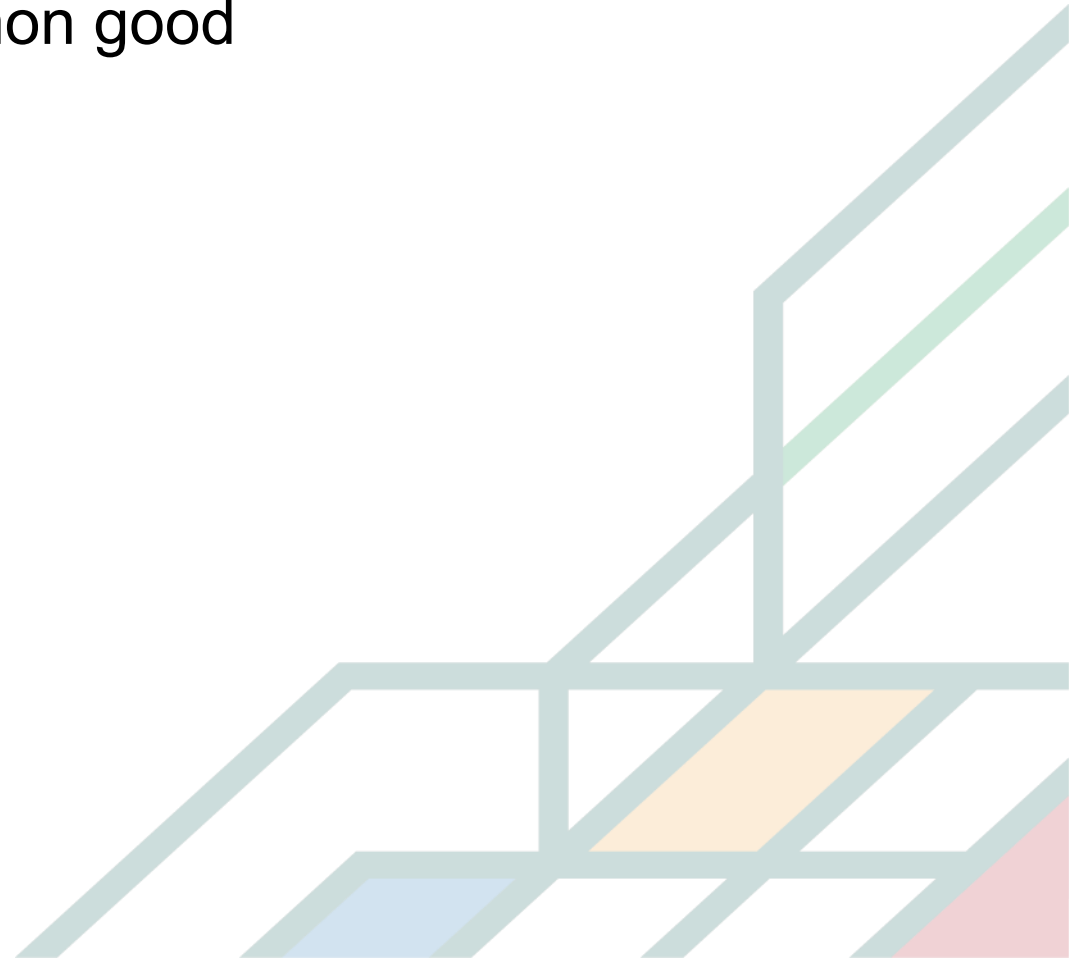
Type 3: Honest Citizen

- *Cyclical 'no' voting* – some or all agree that there will be a cyclical 'no' vote
- *Small coalitions* – coalitions from countries of the same region and then try to unite into one large coalition.



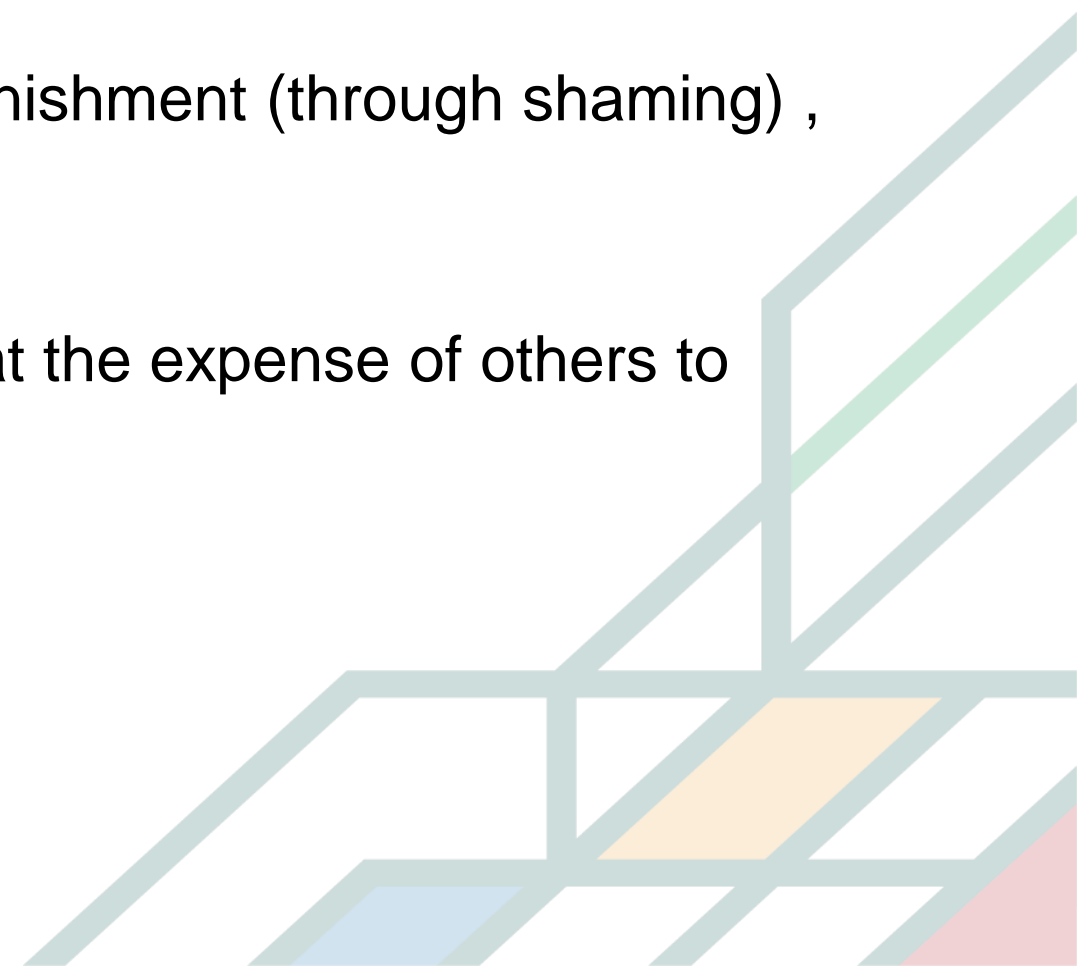
Type 4: Saint

- **Thinks only of the common good of the group**, ignoring one's own personal gain
- Identifies own benefit with the group's common good
- **Always cooperate**



Type 4: Saint

- To convince those who live at the expense of others, various methods of persuasion are used:
 - *direct confrontation* – intimidation and punishment (through shaming) , such as a mass 'no' vote
 - *friendly persuasion*
 - *delay tactics* - an offer to those who live at the expense of others to postpone the "no" vote to a later date
 - *bribery*.



	Type			
	Win-oriented	Opportunist	Honest citizen	Saint
Moral philosophy	Relative self-improvement	Absolute, unlimited self-interest	Absolute, limited self-interest	Collective benefit
Goal	Achieve better results than other participants	Do as best as possible without any restrictions	Draw as best as possible within moral limits	Achieve the best result for the team
Strategic challenges	Isn't	Vote as much "no" as possible yourself, getting the others to cooperate	Get as many participants as possible to work together	Collaborate and get others to work together
Behavior	Always a 'no' vote	Hidden or undisguised dishonest living at the expense of others	Bullying tactics or coalitions	Cooperation all the time and persuasion tactics